

Notice of Allowability

Application No.

10/826,197

Examiner

Khareem E. Almo

Applicant(s)

WOODS, PAUL R.

Art Unit

2816

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to papers filed 1/3/2006.
2. ☒ The allowed claim(s) is/are 1,2,4-16 and 18-23.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|---|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____ |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____ | 7. <input type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____ |

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1. The following is an examiner's statement of reasons for allowance: With respect to claim 1 the prior art of record fails to disclose or suggest a clock doubler comprising timing circuitry for generating a first signal indicative of the time the output clock signal is low, and a second signal indicative of the time the output clock signal is high and a tap delay line connected to receive at least the first signal wherein the timing circuitry tracks the delay through the tap delay line and the first signal is indicative of the delay through the tap delay line.

With respect to claim 8 the prior art of record fails to disclose or suggest a clock doubler comprising a first tap delay line connected to receive the first output and having a first tap delay output; a second tap delay line connected to receive the second output and having a second tap delay output; and a comparator output indicative of whether the first comparator input is greater than, less than, or equal to the second comparator input; and whereby the time the second clock signal is low or high is variably controlled by the comparator output.

With respect to claim 15 the prior art of record fails to disclose or suggest a method of correcting the duty cycle of a clock doubler comprising generating a first signal indicative of the time the clock signal is low; generating a second signal indicative of the time the clock signal is high; and generating the first signal and generating the second signal generates a signal by tracking the delay through a tap delay line as recited in the claims.

With respect to claim 21 the prior art of record fails to disclose or suggest a clock doubler comprising a second tap delay line for delaying the second signal wherein

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the comparison circuitry uses a comparator, the comparator comprising a first input indicative of the delay through the first tap delay line; a second input indicative of the delay through the second tap delay line and outputs indicative of whether the first signal is greater than, less than, or equal to the second signal.

With respect to claim 22 the prior art of record fails to disclose or suggest a clock doubler comprising timing circuitry for generating a first signal indicative of the time the clock signal is low, and a second signal indicative of the time the clock signal is high as recited in the claims.

With respect to claim 23 the prior art of record fails to disclose or suggest a method of correcting the duty cycle of a clock doubler comprising generating a first signal indicative of the time the clock signal is low; generating a second signal indicative of the time the clock signal is high and comparing the first signal and the second signal wherein comparing the first signal and the second signal uses a comparator having a first input indicative of the delay through the tap delay line of the first signal; having a second input indicative of the delay through the tap delay line of the second signal; having outputs indicative of whether the first signal is greater than, less than, or equal to the second signal.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

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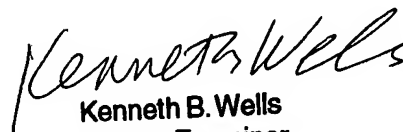
2. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Khareem E. Almo whose telephone number is (571) 272-5524. The examiner can normally be reached on Mon-Fri (8:30-5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tim Callahan can be reached on (571) 272-1740. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


KEA

1/12/2006


Kenneth B. Wells
Primary Examiner